

ELECTROABSORPTION MODULATED LASER

ABSTRACT OF THE DISCLOSURE

An integrated electroabsorption modulated laser (EML) device includes a distributed feedback (DFB) laser and modulator. The DFB laser includes an active layer
5 and a complex index grating. The modulator includes an active layer. The EML device includes a first electrical contact over the DFB laser and a second electrical contact over the modulator. The EML device includes a stop etch layer above the active layer of both the DFB laser and the modulator. An electroabsorption modulated partial grating laser (EMPGL) device includes a distributed feedback (DFB) laser, an amplifier and a
10 modulator. An ion implantation region in the EML/EMPGL devices provides electrical isolation between the DFB laser/amplifier and the modulator.